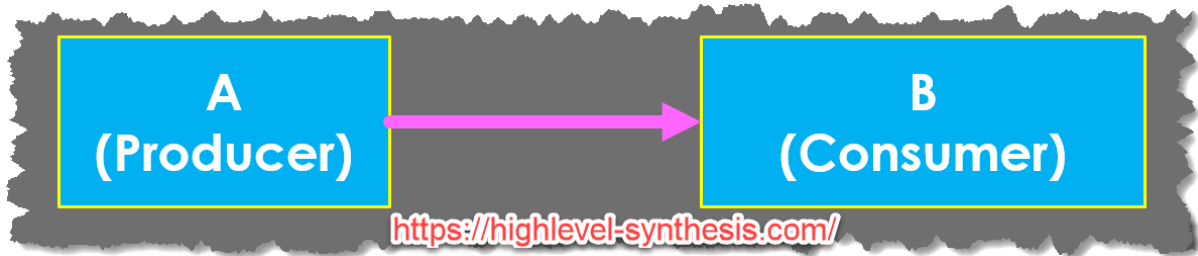


Two modules exchanging data or control signals may need to use a handshaking mechanism if they are not ready to generate or consume data.



For example, if module A produces data and module B consumes that data, then there should be a synchronisation mechanism between them.

- 1- This synchronisation mechanism can be based on the clock signal only. The single-cycle design technique relies on this approach.
- 2- The synchronisation mechanism can use handshaking mechanisms along with the clock signals. In this case, producer and consumer data modules inform each other of their status of generating or processing the data.